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#18 (Response)

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Docket: 740756-2027



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of )  
Shunpei YAMAZAKI et al. )  
Serial No. 09/396,381 ) Art Unit: 1756  
Filed: September 15, 1999 ) Examiner: M. ANGEBRANNDT  
For: APPARATUS FOR FABRICATING )  
COATING AND METHOD OF )  
FABRICATING THE COATING ) Date: March 11, 2002

RESPONSE

Honorable Commissioner for Patents and Trademarks  
Washington, D.C. 20231

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Sir:

In response to the Advisory Action mailed February 11, 2002, the following remarks are respectfully submitted.

Initially, the Examiner is thanked for entering Applicants' Amendment of December 11, 2001.

Turning now to the Advisory Action, the Examiner maintains the rejections based on Miyamoto, Hirayama et al. or Brezoczky et al. as recited in Sections 8-11 of the final office action dated July 11, 2002. Also, the Examiner is contending that there is ample motivation to use the materials of the secondary references to form coatings with reduced pinhole, increased density, increased hardness, increased wear resistance and/or corrosion resistance. The rejections are respectfully traversed at least for the reasons provided below.

Referring again to Miyamoto, Hirayama et al. and Brezoczky et al., Applicants respectfully submit that Miyamoto discloses a magneto-optical recording medium having a carbon sputtering protective layer, Hirayama et al. disclose a magneto-optical recording medium having a diamond-like carbon film with a hardness of 2500Kgf/mm<sup>2</sup>, and Brezoczky et al. disclose an optical recording system having a hard amorphous carbon protective film.

Also, referring to some of the secondary references, Shinohara et al. disclose a magnetic recording medium having a hard carbon dense film in which the number of pinholes is decreased, and Murai et al. disclose a magnetic recording medium having a diamond-like carbon film having no defect. Thus, it would appear that the references disclosing the optical recording medium (Miyamoto, Hirayama et al. and Brezoczky et al.) do not suggest reducing pinholes in the carbon film but rather suggest obtaining the carbon film with an excellent hardness.

Although the secondary references suggest reducing the number of pinholes and forming the dense carbon film, Applicants respectfully submit that the pinhole is caused by charging up during formation of the carbon film, and is not related to the hardness which is affected by composition of atoms. Further, the specification of the present invention expressly teaches that improvements in hardness and adhesion of the hard carbon coating and the prevention of generation of the pinholes are not always performed together (see page 2, lines 24-26 of the specification).

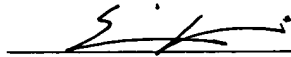
Therefore, Applicants respectfully submit that it would not be proper to combine the references, which suggest obtaining the excellent hardness, with the secondary references, which suggest the reduction of pinholes.

Furthermore, the secondary references do not suggest applying the carbon film of the magnetic recording medium in which the pinholes are decreased to the optical recording medium.

In view of the arguments set forth above, Applicants respectfully request reconsideration and withdrawal of the rejections maintained by the Examiner.

Applicants respectfully submit that claims 1-6, 8-20, 22-34, 36-48, and 50-167 are in condition for allowance. An early and favorable Notice of Allowance is respectfully solicited. In the event that the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, the Examiner is courteously requested to contact Applicants' undersigned representative.

Respectfully submitted,



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